Amendments to the Specification:

Please replace the paragraph beginning at page 2, line 16 with the following amended paragraph:

A1

As shown in FIG. 1, mobile-devices 20a, 20n exchange data with servers 26a, 26n using a computer network 28, which may any one of sub-networks 28a, 28n through a home-agent 24, which can interface with any of the sub-networks 28a, 28n. The computer network 28a, 28n can be, but is not limited to, the Internet, a local area network (LAN), or a wireless local area network (WLAN). The communications link 30, which can be implemented using wired or wireless technologies, is the connection point through which data flows over the network 28a, 28n. A mobile-device 20a, 20n includes a processor capable of connecting to the network 28a, 28n using wireless techniques. Each mobile-device 20a, 20n is assigned a real-address (RA) 21a, 21n by a dynamic host configuration protocol (DHCP) server 23 and a home-address (HA) 23a, 23n by the home-agent 24. The home-agent 24 is assigned a home-agent address (HAA) 25 and a media access control (MAC) address 27 that is based on a unique hardware number associated with the home-agent 24. The home-agent 24 is a network-compatible device that determines the network point to which data should be forwarded towards its destination.

Please replace the paragraph beginning at page 7, line 8 with the following amended paragraph:

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The home-agent 24 is driven and controlled by various levels of programs contained in software module 56. The software module 56 includes an OS 58 responsible for managing the home-agent 24, application programs 60 responsible for providing the functions performed by the home-agent 24 such as managing the mobile-devices 20, 20n, and network protocol layer 61 such as a TCP/IP program stack for managing data packets. A proxy-driver 62 resides at a logically lower level [[then]] than the TCP/IP layer 61 and is responsible for maintaining uninterrupted communication between the mobile-devices 20a, 20n and a particular server 26a, 26n. The proxy-driver 62 manages the data-requests, in the form of

data-packets, generated by a mobile-device 20a, 20n and directed to a server 26a, 26n. It also manages the corresponding data-response from the server 26a, 26n in the form of data-packets. A network-driver 66 is responsible for controlling the NIC 68 and enabling the exchange of data-packets over the network 28a, 28n.

Please replace the paragraph beginning at page 8, line 22 with the following amended paragraph:

Next the mobile-device 20a requests 86 a RA from the DHCP server 23 (see FIG. 1). The DHCP protocol allows network and subnet administrators to manage centrally and to automate the assignment of IP addresses in an organization's network. The DHCP server 23 assigns a RA dynamically and avoids the necessity of the user entering a new RA every time the RA changes when the mobile-device 20a moves to a new location. The DHCP server 23 responds with a RA 96 (see FIG. 5C) including a network-portion 96a set to 200.300, a subnet-portion 96b set to 600, and a host-address-portion 96c set to 100. Once the mobile-device 20a, 20n receives 88 the unique RA from the DHCP server 23, it stores it in memory for later retrieval whenever it needs to communicate over the network 28a, 28n. The mobile-device 20a then communicates 90 the RA 96 to the home-agent using a standard roaming protocol "registration message" over one of the network networks 28a, 28n. The home-agent 24 then transmits 92 to the mobile-device 20a the MAC address 98 associated with the home-agent NIC 68. FIG. 5D shows a typical MAC address 98 associated with the home-agent 24 hardware. Once the mobile-device 20a has registered with the home-agent 24, it is now capable of communicating with a server 26a, 26n over the network 28a, 28n through the home-agent.

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Please replace the paragraph beginning at page 10, line 13 with the following amended paragraph:

Once the application-data-segment 500 has been generated, it is forwarded to the TCP/IP stack 46 of the mobile-device 20a which further processes 102 the data packet. The TCP/IP stack is a two-layer program in which the TCP portion is responsible for disassembling and assembling a data packet and the IP portion handles the address part of the packet so that it arrives at the correct destination. Alternatively, a UDP program layer can be used instead of TCP, and, together with IP, can generate a data-unit called a datagram. As shown in FIG. 7B, a TCP/IP-header 502 includes a TCP/UDP sub-header 502c and IP sub-headers 502a, 502b are concatenated to ~~header~~ application-data-segment 500. In a TCP embodiment, the header 502c provides information associated with the packets that have been disassembled for transmission in order for the destination end to be able to reassemble the received packets. On the other hand, in a UDP embodiment, sequencing of the packets is not provided. Therefore, the application program at the receiving destination is responsible for assuring that the data packets arrive in the correct order. UDP can be used when ordering is not an issue or when the data units exchanged are small allowing network applications to

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save processing time. The IP program is responsible for setting the source-address field 502a to the HA of the mobile-device 20a and setting the destination-address-field 502b to the server-address SA of the server 26a requested by the mobile-device 20a.

Please replace the paragraph beginning at page 11, line 14 with the following amended paragraph:

A5

After the TCP/IP-header 502 has been formed, the mobility-driver 48 handles the concatenation 104 of the link-layer-header 504 to the current data packet including ~~headers~~ application-data-segment 500 and header 502. As shown in FIG. 7C, the link-layer-header 504 includes the MAC address field 504a which is set to the address corresponding to the unique hardware number of the home-agent 24. The MAC address is used by the MAC sublayer of the data-link layer (DLC) of the OSI model. The mobility-driver 48 then encapsulates 106 the data packet including headers 500, 502, 504 with an additional roaming-header 506 that includes an IP and a UDP portion. As shown in FIG. 7D, the UDP portion 506c is set to the address of the proxy-driver 62 program residing in the home-agent 24. The IP portion includes the source-address-field 506a, which is set to the RA of the mobile-device 20a, and the destination-address-field 506b, which is set to the HAA of the home-agent 24.

Please replace the paragraph beginning at page 12, line 6 with the following amended paragraph:

A6

Once the data-packet has been formed with the application-data-segment 500 and various headers [[500]] 502-506, it is ready to be transmitted to the home-agent 24 over the network 28a, 28n. The data-packet is handed to the network-driver 52 in the mobile-device 20a corresponding to the physical layer of the OSI model. The network-driver 52 ensures that the data-packet is transmitted 108 over the network 28a, 28n.

Please replace the paragraph beginning at page 12, line 13 with the following amended paragraph:

After the data-packet is transmitted over the network 28a, 28n, it is received 110 by the home-agent 24 and handled by the NIC 68 in conjunction with the network driver 66. The data-packet is then forwarded to the proxy-driver 62, which is responsible for processing 112 the data-packet headers. As shown in FIG. 7E, the proxy-driver 62 removes the roaming-header 506 so that the data packet 508 includes the application-data-segment 500 and the original headers [[500,]] 502, and 504. The data-packet then is retransmitted 114 over the network 28a, 28n and directed to the server 26a associated with the destination address embedded in the destination-field 502b of the data-packet.

Please replace the paragraph beginning at page 13, line 1 with the following amended paragraph:

As shown in FIG. 8, the server 26a corresponding to the destination field 502b receives 200 the data-packet from the home-agent 24. The server 26a handles the data-packet using a network adapter and a corresponding network device driver. Application programs running on the server process 202 the request based on the information in the data packet. As shown in FIG. 9A, based on the earlier request from the mobile-device 20a, the server application responds with an application-data-segment header 600 containing news-related information in a format compatible with standard network communications protocols based on the OSI model. The server not only responds with the actual data, but it also adds information related to the source and destination of the data packet. As shown in FIG. 9B, the layers in the server 26a generate a response-header 602 containing a source-address-field 602a set to the IP address of the server and a destination-address-field 602b set to the ~~HA of the mobile-device 20a~~ HAA of the home-agent 24. Once the data packet has been constructed with the communication headers, the server 26a transmits 204 the data-packet over the network 28a, 28n using, for example, standard network communications techniques.